WHAT IS CLAIMED IS:

1. A vehicle having an engine and a transmission connected to the engine, the vehicle comprising:

a detecting device for detecting a current speed of the vehicle;

a detecting device for detecting a current gear position of the transmission; and

a controller which functions to:

set a difference between a maximum drive force of the vehicle at the current vehicle speed and gear position, and a running resistance at the current speed as a spare drive force;

set a difference between a current drive force of the vehicle and the running resistance at the current vehicle speed as an excess drive force; and

control at least one of the vehicle engine and the transmission so as to reduce a ratio of the excess drive force to the spare drive force.

2. The vehicle as defined in claim 1, further comprising:

a fuel injection device for injecting fuel in the engine at a flow rate in accordance with a fuel injection pulse width, wherein the controller further functions to:

compute a fuel injection pulse width sent to the fuel injection device based on an operating condition of the vehicle;

compute a fuel injection pulse width in which the ratio of the excess drive force to the spare drive force is a predetermined ratio as an injection pulse width upper limit;

limit the computed fuel injection pulse width to the injection pulse width upper limit when the computed fuel injection pulse width is larger than the injection pulse width upper limit; and

control the fuel injection device so that the fuel injection pulse width becomes the fuel injection pulse width after limiting.

3. The vehicle as defined in claim 2, further comprising

a detecting device for detecting a current load of the engine, wherein

the controller further functions to begin limiting the fuel injection pulse width following the passage of a predetermined time period after detecting that the load of the engine has increased.

4. The vehicle as defined in claim 3, wherein the controller further functions to bring the fuel injection pulse width closer to the fuel injection pulse width upper limit by reducing the fuel injection pulse width computed based on the vehicle operating condition in accordance with the passage of time.

5. The vehicle as defined in claim 2, further comprising

a detecting device for detecting an acceleration of the vehicle, wherein

the controller further functions to begin limiting the fuel injection pulse width following the passage of a predetermined time period after detecting the acceleration of the vehicle.

6. The vehicle as defined in claim 5, wherein the controller further functions to bring the fuel injection pulse width closer to the fuel injection pulse

width upper limit by reducing the fuel injection pulse width computed based on the vehicle operating condition in accordance with the passage of time.

7. The vehicle according to claim 1, wherein the transmission is an automatic transmission, the vehicle further comprising:

a detecting device which detects a current rotational speed of the engine; and

a detecting device which detects a current load of the engine;

and wherein the controller comprises a fuel consumption ratio map that stipulates the relationship between the engine rotational speed, the engine load, and the fuel consumption ratio; and further functions to:

compute an engine rotational speed and load of when the transmission is shifted up, based on the current engine rotational speed and load;

compute a current fuel consumption ratio of the engine based on the current engine rotational speed and load with reference to the fuel consumption ratio map;

compute a fuel consumption ratio of the engine of when the transmission is shifted up, based on the engine rotational speed and load of when the shift up has been performed with reference to the fuel consumption ratio map; and

shift the transmission up automatically if the fuel consumption ratio of when the shift up has been performed is less than the current fuel consumption ratio.

8. The vehicle according to claim 1, wherein the transmission is an automatic transmission, the vehicle further comprising:

a detecting device for detecting a current engine rotational speed; and

a detecting device for detecting a current load of the engine;

and wherein the controller comprises a fuel consumption ratio map that stipulates the relationship between the engine rotational speed, the engine load, and the fuel consumption ratio; and further functions to shift the transmission up automatically if the current engine rotational speed is higher than a maximum rotational speed in a best fuel consumption ratio region in the fuel consumption ratio map by at least a predetermined percentage, wherein the best fuel consumption ratio region is a region in which the fuel consumption ratio is lower than a predetermined value.

9. The vehicle as defined in claim 1, wherein the transmission is an automatic transmission, the vehicle further comprising:

a detecting device for detecting a current rotational speed of the engine and

a detecting device for detecting a current load of the engine;

and wherein the controller comprises a fuel consumption ratio map that stipulates the relationship between the engine rotational speed, the engine load, and the fuel consumption ratio; and further functions to:

compute an optimal gear position of the transmission in which the fuel consumption ratio is most improved when running on a level road at the current vehicle speed; and

shift the transmission up if the current load of the engine is lower than the engine load of when running in the optimal gear position and if the

current engine rotational speed is higher than a maximum rotational speed in a best fuel consumption ratio region in the fuel consumption ratio map by at least a predetermined percentage, wherein the best fuel consumption ratio region is a region in which the fuel consumption ratio is lower than a predetermined value.

10. The vehicle as defined in claim 1, wherein the transmission is an automatic transmission, the vehicle further comprising a detecting device for detecting a current rotational speed of the engine, and wherein the controller further functions to:

set a shift-up rotational speed lower as the gear position of the transmission moves to the LOW side; and

shift the transmission up when the current engine rotational speed is higher than the shift-up rotational speed.

11. The vehicle as defined in claim 1, wherein the transmission is an automatic transmission, the vehicle further comprising:

a detecting device for detecting a current rotational speed of the engine; and

a detecting device for detecting a current load of the engine;

and wherein the controller comprises a fuel consumption ratio map that stipulates the relationship between the engine rotational speed, the engine load, and the fuel consumption ratio; and further functions to:

set a shift-up line that passes through the intersection of a maximum torque line of the engine and a line of the torque required to run on a level road in a gear position on the most HIGH side, and that makes contact with

a region in which the fuel consumption ratio is less than an allowable value on the fuel consumption ratio map; and

shift the transmission up if an operation point of the engine stipulated by the current engine rotational speed and load is on the side of higher rotational speeds or lower loads in relation to the shift-up line on the fuel consumption ratio map.

12. The vehicle as defined in claim 1, wherein the transmission is an automatic transmission, the vehicle further comprising a detecting device for detecting a current rotational speed of the engine, and wherein the controller comprises a fuel consumption ratio map that stipulates the relationship between the engine rotational speed, the engine load, and the fuel consumption ratio; and further functions to:

set a shift-up line that passes through the intersection of a maximum torque line of the engine and a line of the torque required to run on a level road in a gear position on the most HIGH side, and that makes contact with a region in which the fuel consumption ratio is less than an allowable value on the fuel consumption ratio map;

set the intersection of the shift-up line and the line of the torque required to run on a level road in each gear position as a shift-up rotational speed in each gear position; and

shift the transmission up if the current engine rotational speed is higher than the shift-up rotational speed in the current gear position.

13. A control method for a vehicle comprising an engine and a transmission, the method comprising:

setting a difference between a maximum drive force of the vehicle at a current vehicle speed and transmission gear position, and a running resistance at the current speed as a spare drive force;

setting a difference between a current drive force of the vehicle and a running resistance at the current vehicle speed as an excess drive force; and

controlling at least one of the engine and the transmission so as to reduce a ratio of the excess drive force to the spare drive force.